

## REMARKS

Claim 1 was rejected over Li.

Claim 1 calls for a pair of output waveguides coupled to a directional coupler. Such a structure is not shown in Li.

In particular, as shown in Figure 1, only a single output waveguide 24 is coupled to the item 10. The item 10, in Figure 1, may be replaced with the item 10' in Figure 2, but it is still evident that only one output waveguide is coupled to the coupler 28 on either end. The waveguide 24 ends and the waveguide 26 begins in the coupled regions.

Therefore, reconsideration of the rejection of claim 1 and its dependent claims, based on Li, is respectfully requested.

Claim 8 was rejected under Section 102 based on Doerr. Claim 8 calls for a directional coupler coupled to two output waveguides also coupled to said slab waveguide. Doerr does not show a directional coupler. Doerr teaches a multi-mode interference coupler 312, not a directional coupler. Therefore, reconsideration of the rejection of claim 8 is respectfully requested.

Claim 1 was also rejected under Nishimura. However, Nishimura suffers from the same deficiency as Li. Namely, Nishimura does not show two output waveguides coupled to one directional coupler. There is only one output waveguide 12 and, even if the Examiner would have called the item 13 an output waveguide, two output waveguides 13 are not coupled to the same directional coupler. Therefore, reconsideration of the rejection of claim 1, based on Nishimura, is respectfully requested.

Claim 17 has been amended to include the subject matter of claim 18, indicated to be allowable.

Claim 22 was rejected based on He. Claim 22 calls for a waveguide pair coupled to said output waveguide coupler, the waveguide pair having a length difference such that a flat spectral output signal is produced. All that He suggests in the Abstract is that the arrayed waveguide have different lengths as is conventional. There is no suggestion that the output waveguide coupler has a waveguide pair having a length difference such that a flat spectral response may be produced. Therefore, reconsideration of the rejection of claim 22 is respectfully requested.

Claim 29 has been amended to include the subject matter of claims 30 and 31.

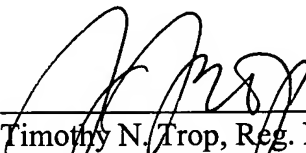
Claim 31 was rejected as unpatentable under Section 103 over the single reference to Doerr. However, to make out a *prima facie* rejection, the missing element must be recognized and a rationale from within the prior art must be shown to arrive at the missing element. Here, most certainly, there is admittedly a missing element, but that missing element cannot be supplied by the very reference that is missing that element. In other words, the rationale to modify, set forth on page 8 of the office action, is not from the prior art and, therefore, a *prima facie* rejection is not made out. Instead, it is nothing but hindsight reasoning, not based on anything that Doerr teaches since it is already admitted that Doerr does not teach the element. Therefore, reconsideration of rejection of claim 29, as amended, is respectfully requested.

Claim 33 has been amended to include the subject matters of claims 34 and 35.

Claim 35 was rejected as unpatentable under Section 103, based on Doerr taken alone. As discussed above, such a rejection fails to make out a *prima facie* rejection and, therefore, reconsideration is respectfully requested.

Respectfully submitted,

Date: March 22, 2005



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